

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) A multi-layer integrated semiconductor structure, comprising:  
a first semiconductor structure comprising a first surface and having a plurality of semiconductor elements associated with a first semiconductor signaling technology;  
a second semiconductor structure comprising a second surface and having a plurality of semiconductor elements associated with a second semiconductor signaling technology; and  
an interface disposed between a the first surface of the first semiconductor structure and a first the second surface of the second semiconductor structure, the interface comprising having at least a first portion adapted to provide a communication interface between the first and second semiconductor structures and at least a second portion adapted to reduce electrical interference between signals propagating along the first and second semiconductor structures, the second portion being directly coupled to the first surface and the second surface, with at least one of the first and second interface portions corresponding to a conductive bonding interface which secures the first surface of the first semiconductor structure to the first surface of the second semiconductor structure.

2. (Currently Amended) The multi-layer integrated semiconductor structure of claim 1, wherein the first portion of the interface includes an electrically conductive adhesive material ~~which secures~~ securing the first surface of the first semiconductor structure to the first second surface of the second semiconductor structure.

3. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the first portion of the interface includes an electrically conductive material.

4. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the second portion of the interface includes an electrically conductive adhesive material.

5. (Original) The multi-layer integrated semiconductor structure of claim 4, wherein the electrically conductive adhesive material is grounded.

6. (Original) The multi-layer integrated semiconductor structure of claim 5, wherein the electrically conductive adhesive material includes at least one of copper, gold, aluminum or a metal alloy.

7. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the second portion of the interface includes a dielectric adhesive material.

8. (Original) The multi-layer integrated semiconductor structure of claim 7, wherein the dielectric adhesive material includes an organic material.

9. (Original) The multi-layer integrated semiconductor structure of claim 7, wherein the dielectric adhesive material includes an inorganic material.

10. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the first semiconductor signaling technology includes digital signaling related technology.

11. (Original) The multi-layer integrated semiconductor structure of claim 1, wherein the second semiconductor signaling technology includes analog signaling related technology.

12. (Currently Amended) The multi-layer integrated semiconductor structure of claim 1, wherein both the first and second interface portions are provided from an electrically conductive adhesive which is adapted to adhesively couple the first surface of the first semiconductor structure to the first second surface of the second semiconductor structure.

13. (Currently Amended) The multi-layer integrated semiconductor structure of claim 12, wherein the first surface of the first semiconductor structure corresponds to a top surface of the first semiconductor structure.

14. (Currently Amended) The multi-layer integrated semiconductor structure of claim 13, wherein the ~~first~~ second surface ~~of the second semiconductor structure~~ corresponds to a bottom surface of the second semiconductor structure.

15. (Currently Amended) The multi-layer integrated semiconductor structure of claim 13, wherein the ~~first~~ second surface ~~of the second semiconductor structure~~ corresponds to a top surface of the second semiconductor structure.

16. (Currently Amended) The multi-layer integrated semiconductor structure of claim 12, wherein the first surface ~~of the first semiconductor structure~~ corresponds to a bottom surface of the first semiconductor structure.

17. (Currently Amended) The multi-layer integrated semiconductor structure of claim 16, wherein the ~~first~~ second surface ~~of the second semiconductor structure~~ corresponds to a top surface of the second semiconductor structure.

18. (Currently Amended) The multi-layer integrated semiconductor structure of claim 16, wherein the ~~first~~ second surface ~~of the second semiconductor structure~~ corresponds to a bottom surface of the second semiconductor structure.

19. (Previously Amended) The multi-layer integrated semiconductor structure of claim 1, wherein both the first and second portions of said interface are provided from an electrically conductive bonding material.